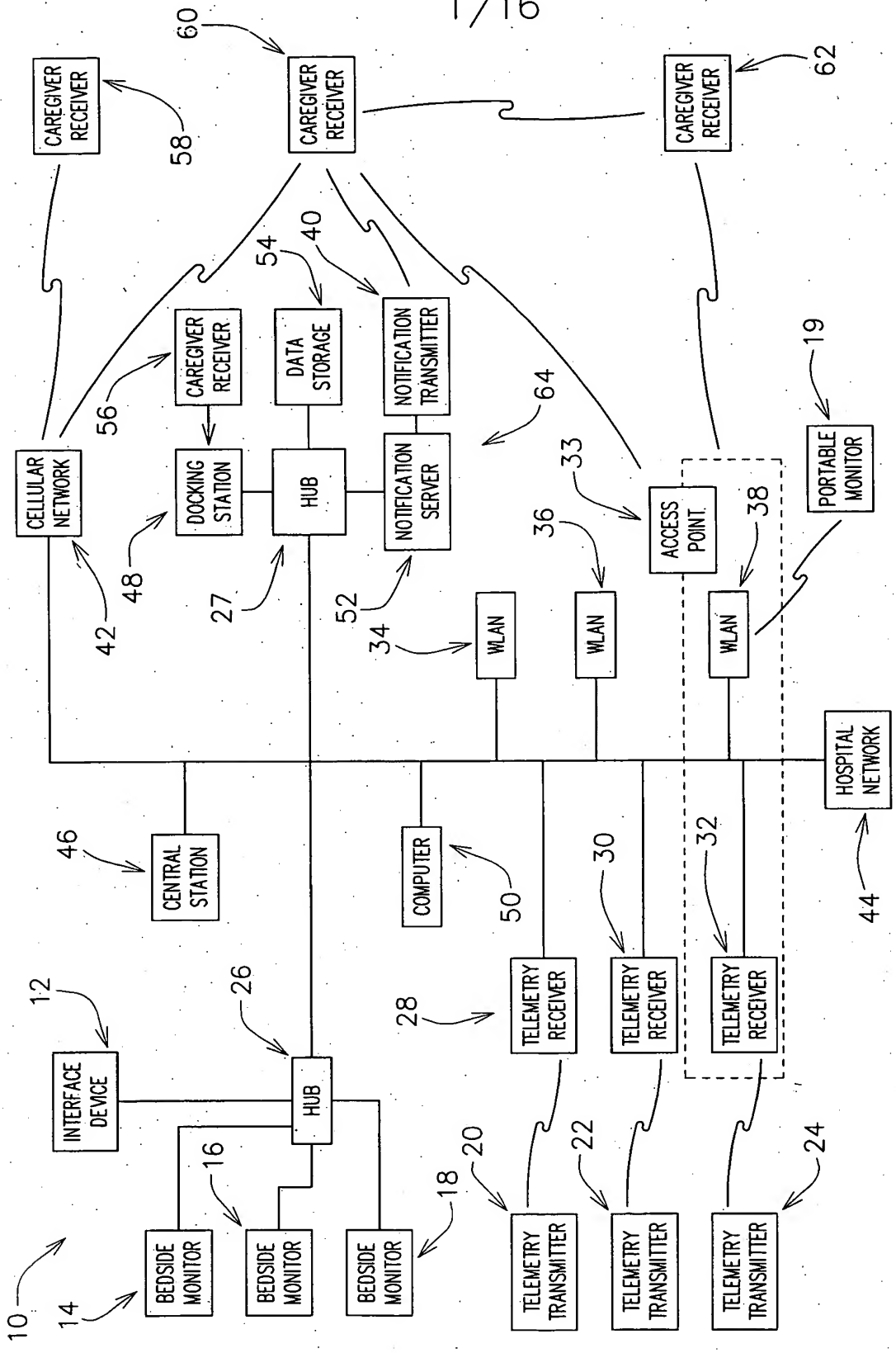

CAREGIVER RECEIVER
CAREGIVER RECEIVER
CAREGIVER RECEIVER
CAREGIVER RECEIVER
DATA STORAGE
NOTIFICATION TRANSMITTER
CELLULAR NETWORK
DOCKING STATION
HUB
NOTIFICATION SERVER
ACCESS POINT
PORTABLE MONITOR
WLAN
WLAN
WLAN
HOSPITAL NETWORK
CENTRAL STATION
COMPUTER
TELEMETRY RECEIVER
TELEMETRY RECEIVER
TELEMETRY RECEIVER
INTERFACE DEVICE
HUB
BEDSIDE MONITOR
BEDSIDE MONITOR
BEDSIDE MONITOR
TELEMETRY TRANSMITTER
TELEMETRY TRANSMITTER
TELEMETRY TRANSMITTER
10
12
14
16
18
19
20
22
24
26
27
28
30
32
33
34
36
38
40
42
44
46
48
50
52
54
56
58
60
62
64

FIG. 1

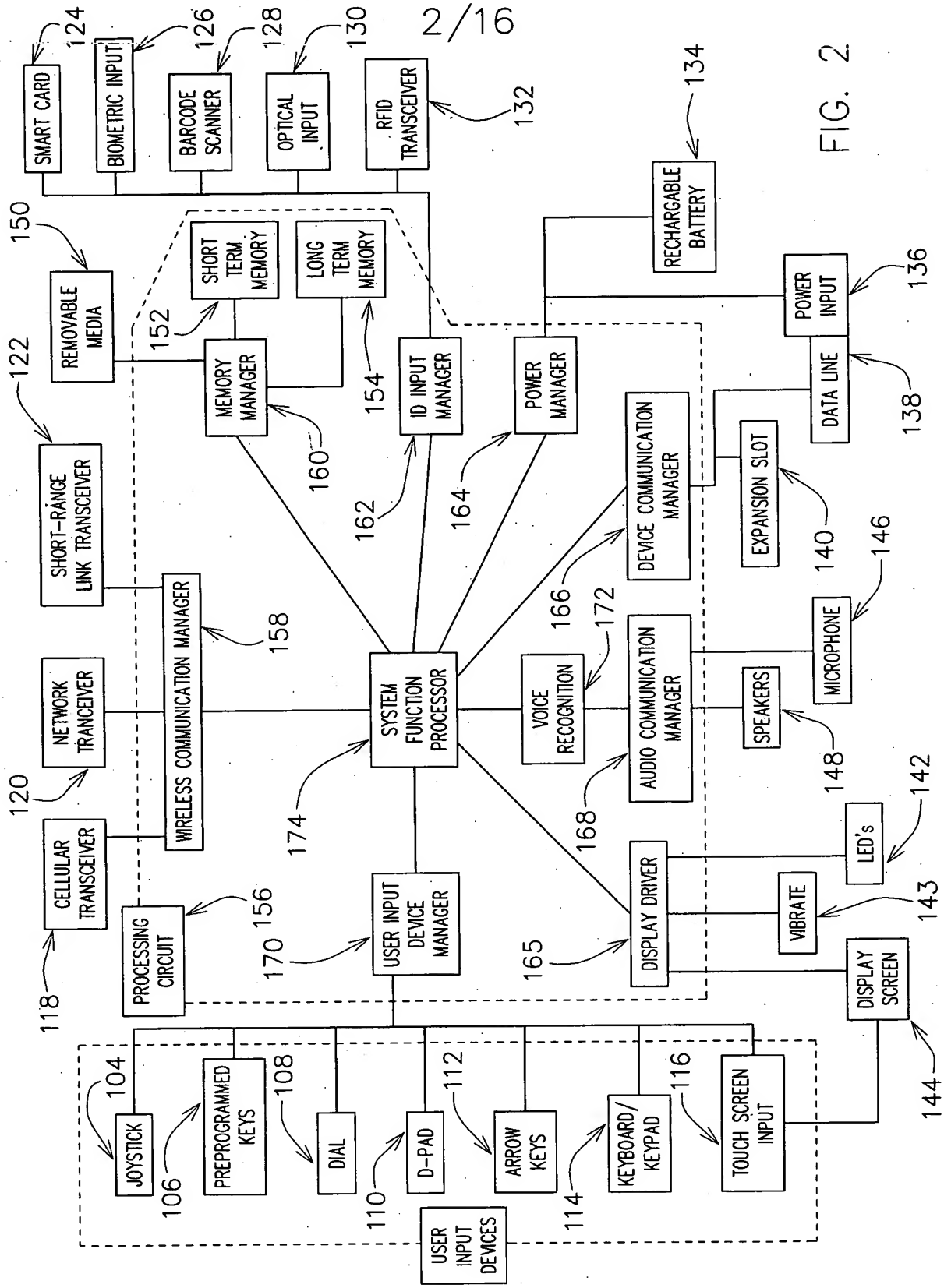

SMART CARD
124
BIOMETRIC INPUT
126
BARCODE SCANNER
128
OPTICAL INPUT
130
RFID TRANSCEIVER
132
134
RECHARGABLE BATTERY
150
REMOVABLE MEDIA
SHORT TERM MEMORY
LONG TERM MEMORY
152
154
MEMORY MANAGER
ID INPUT MANAGER
POWER MANAGER
POWER INPUT
136
DATA LINE
138
122
SHORT-RANGE LINK TRANSCEIVER
160
162
164
DEVICE COMMUNICATION MANAGER
EXPANSION SLOT
140
146
166
172
158
NETWORK TRANCEIVER
WIRELESS COMMUNICATION MANAGER
SYSTEM FUNCTION PROCESSOR
VOICE RECOGNITION
AUDIO COMMUNICATION MANAGER
MICROPHONE
SPEAKERS
148
120
174
168
142
CELLULAR TRANSCEIVER
LED's
156
170
USER INPUT DEVICE MANAGER
165
DISPLAY DRIVER
VIBRATE
143
PROCESSING CIRCUIT
118
DISPLAY SCREEN
144
104
108
112
116
JOYSTICK
PREPROGRAMMED KEYS
DIAL
D-PAD
ARROW KEYS
KEYBOARD/ KEYPAD
TOUCH SCREEN INPUT
106
110
114
USER INPUT DEVICES

FIG. 2

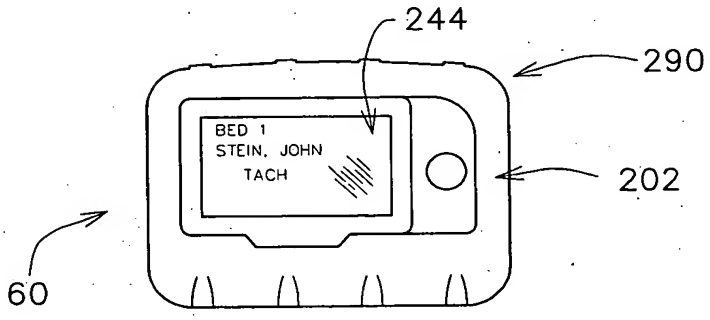

244
290
BED 1
STEIN, JOHN
TACH
202
60

FIG. 3A

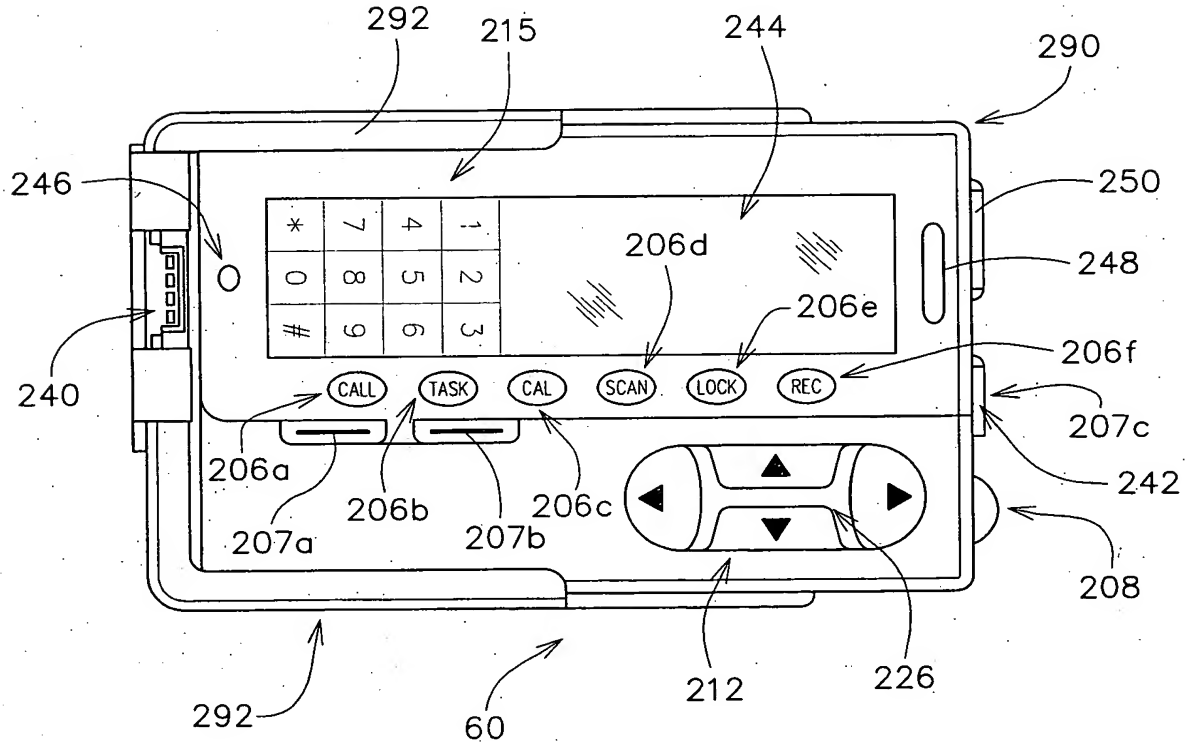

292
215
244
290
246
250
206d
248
206e
206f
240
CALL
TASK
CAL
SCAN
LOCK
REC
207c
206a
242
206b
206c
207a
207b
208
292
60
212
226

FIG. 3B

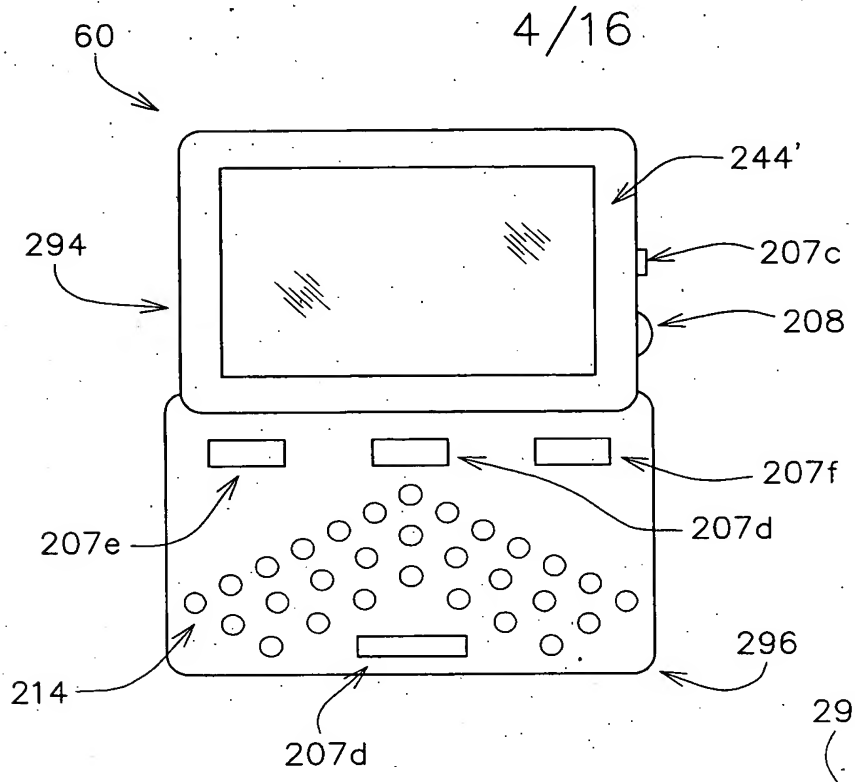



FIG. 3C

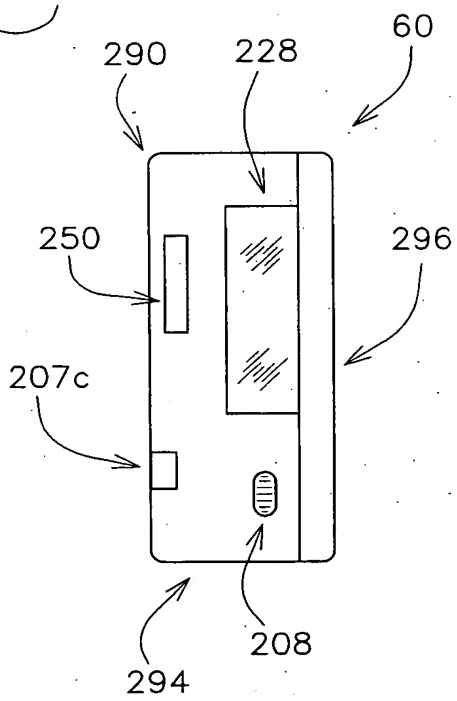



FIG. 3D

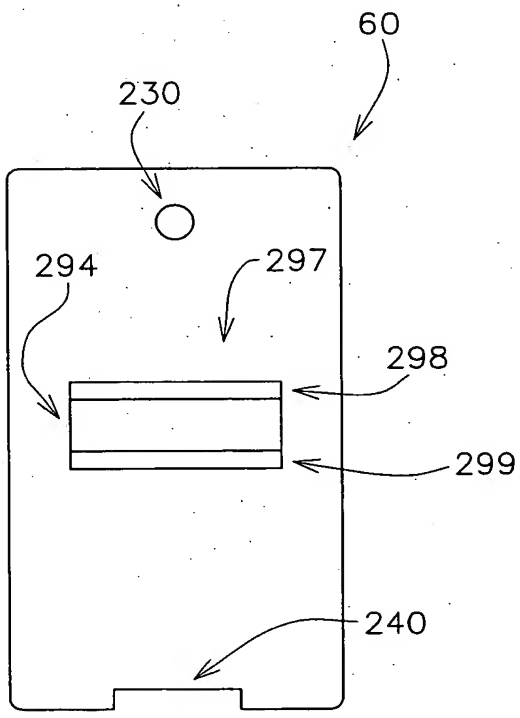



FIG. 3E

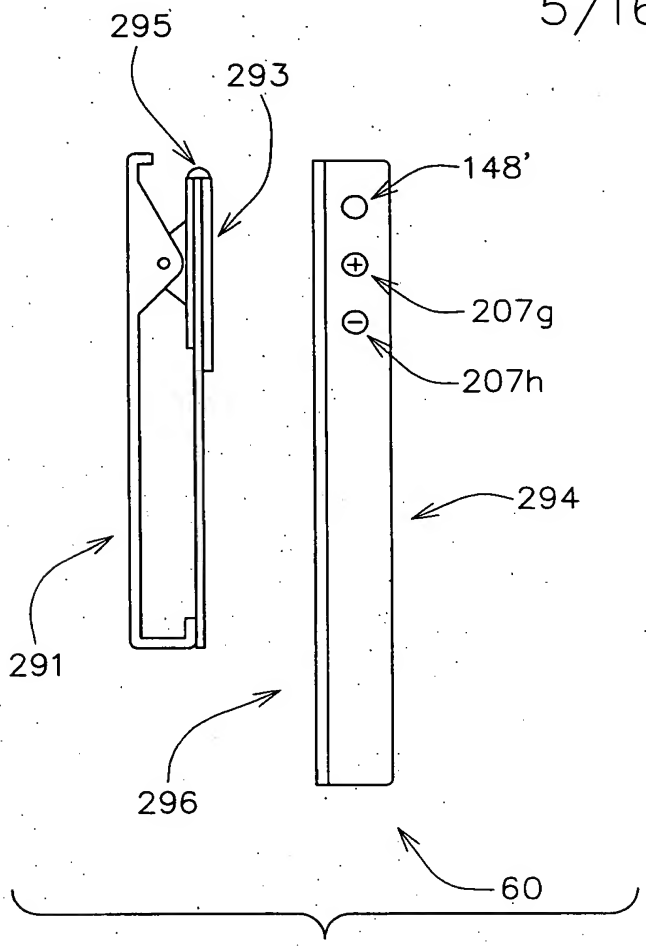



FIG. 3F

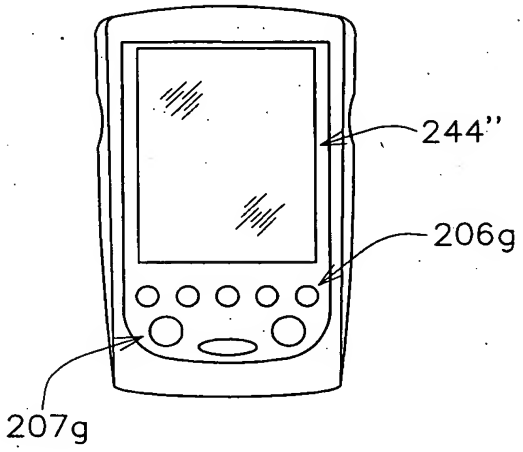



FIG. 3G

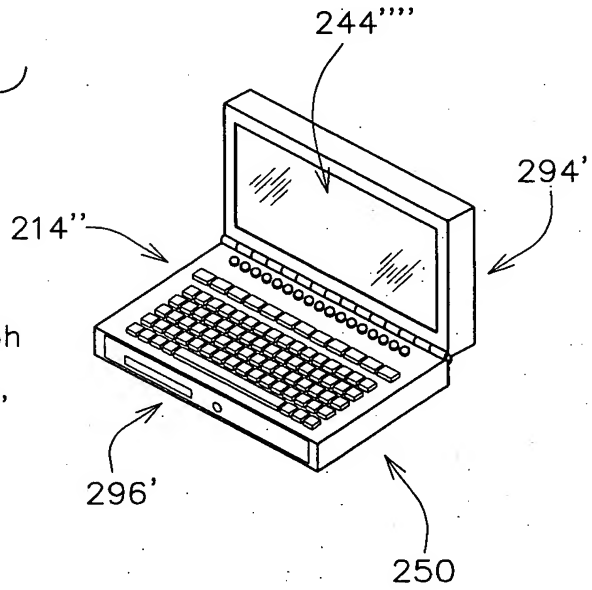



FIG. 3I

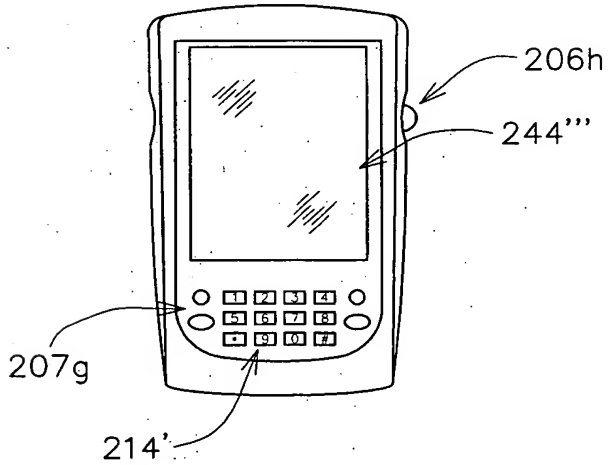



FIG. 3H

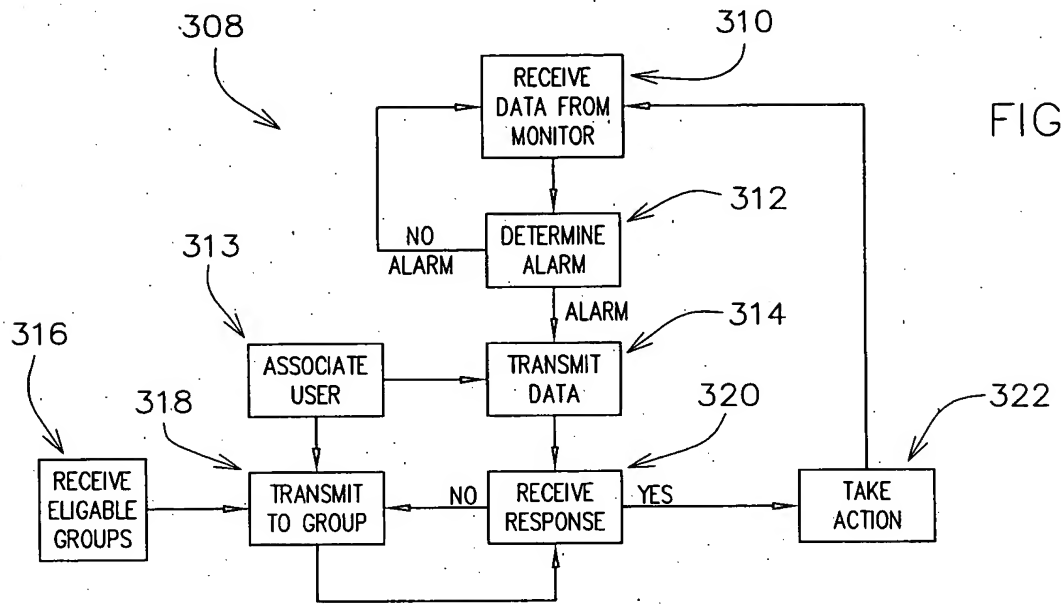

308
310
RECEIVE DATA FROM MONITOR
312
NO ALARM
DETERMINE ALARM
313
ALARM
314
316
ASSOCIATE USER
TRANSMIT DATA
318
320
322
RECEIVE ELIGABLE GROUPS
TRANSMIT TO GROUP
NO
RECEIVE RESPONSE
YES
TAKE ACTION

FIG. 4

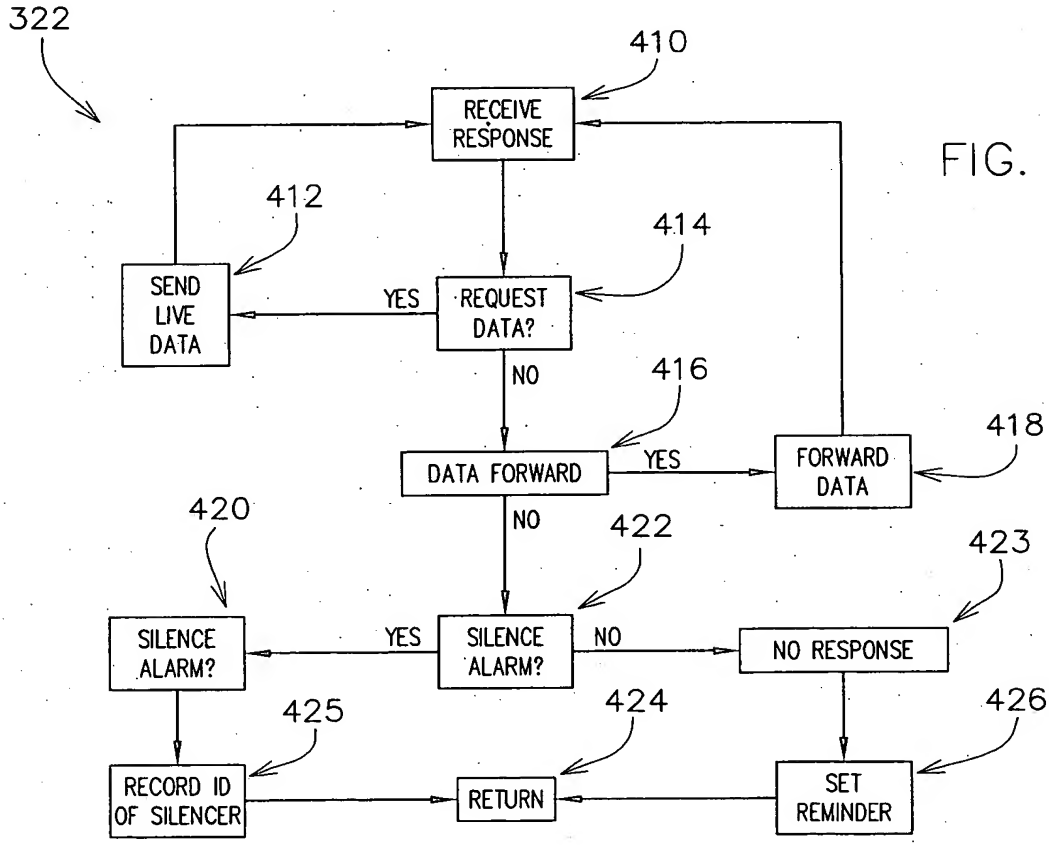

322
410
RECEIVE RESPONSE
412
414
SEND LIVE DATA
YES
REQUEST DATA?
NO
416
418
DATA FORWARD
YES
FORWARD DATA
420
NO
422
423
SILENCE ALARM?
YES
SILENCE ALARM?
NO
NO RESPONSE
425
424
426
RECORD ID OF SILENCER
RETURN
SET REMINDER

FIG. 5

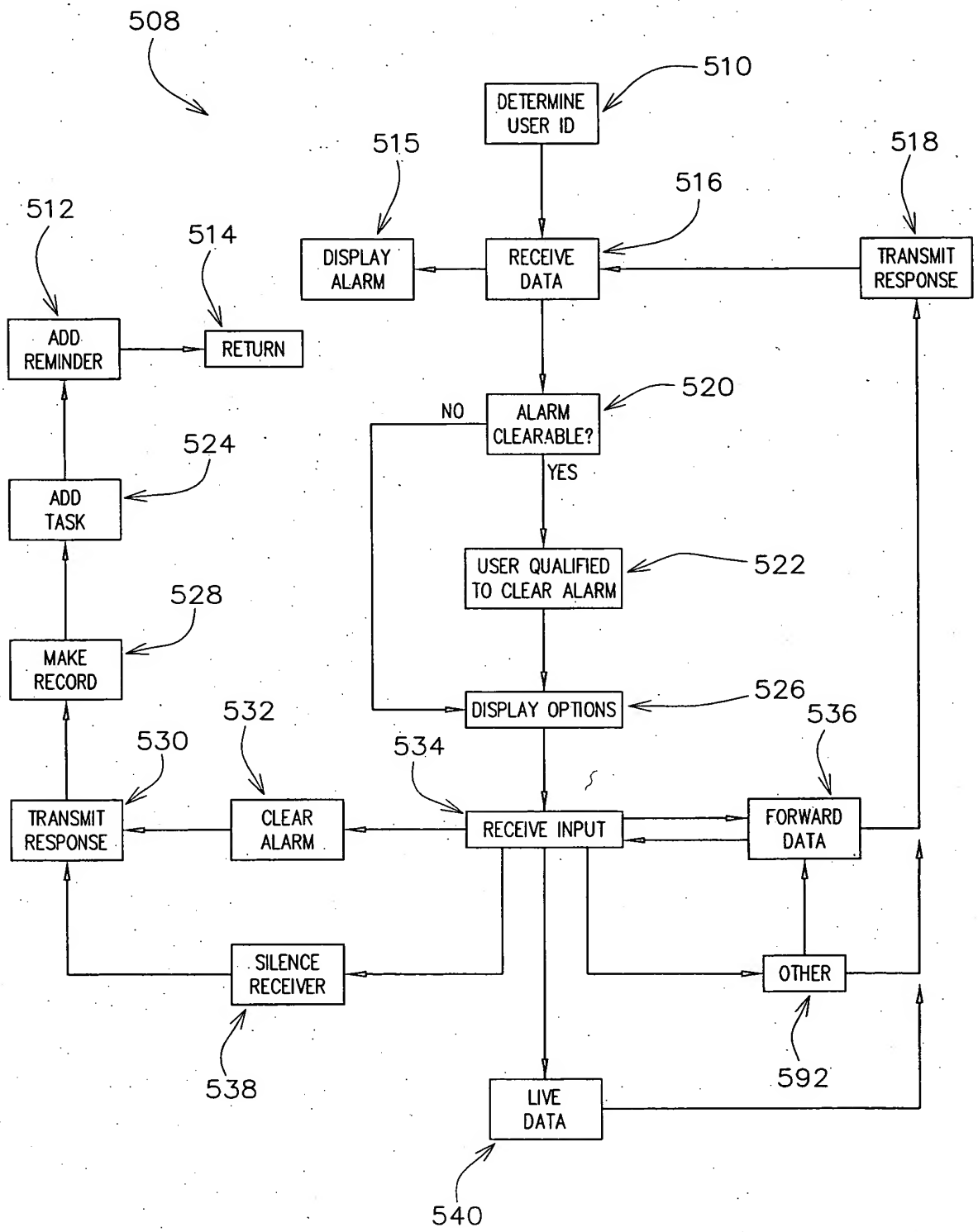
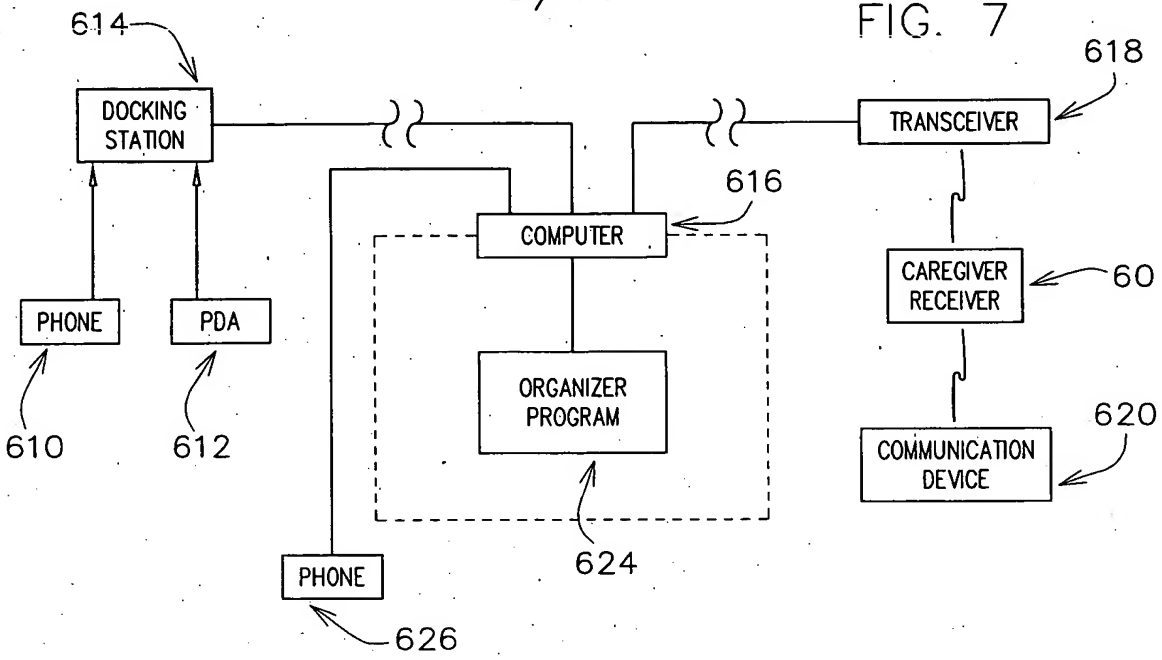

508
510
DETERMINE USER ID
515
518
516
512
514
DISPLAY ALARM
RECEIVE DATA
TRANSMIT RESPONSE
ADD REMINDER
RETURN
520
NO
ALARM CLEARABLE?
524
YES
ADD TASK
USER QUALIFIED TO CLEAR ALARM
522
528
MAKE RECORD
526
DISPLAY OPTIONS
532
536
530
534
TRANSMIT RESPONSE
CLEAR ALARM
RECEIVE INPUT
FORWARD DATA
SILENCE RECEIVER
OTHER
538
592
LIVE DATA
540

FIG. 6

FIG. 7


614
DOCKING STATION
618
TRANSCEIVER
616
COMPUTER
CAREGIVER RECEIVER
60
PHONE
PDA
ORGANIZER PROGRAM
620
COMMUNICATION DEVICE
610
612
624
PHONE
626

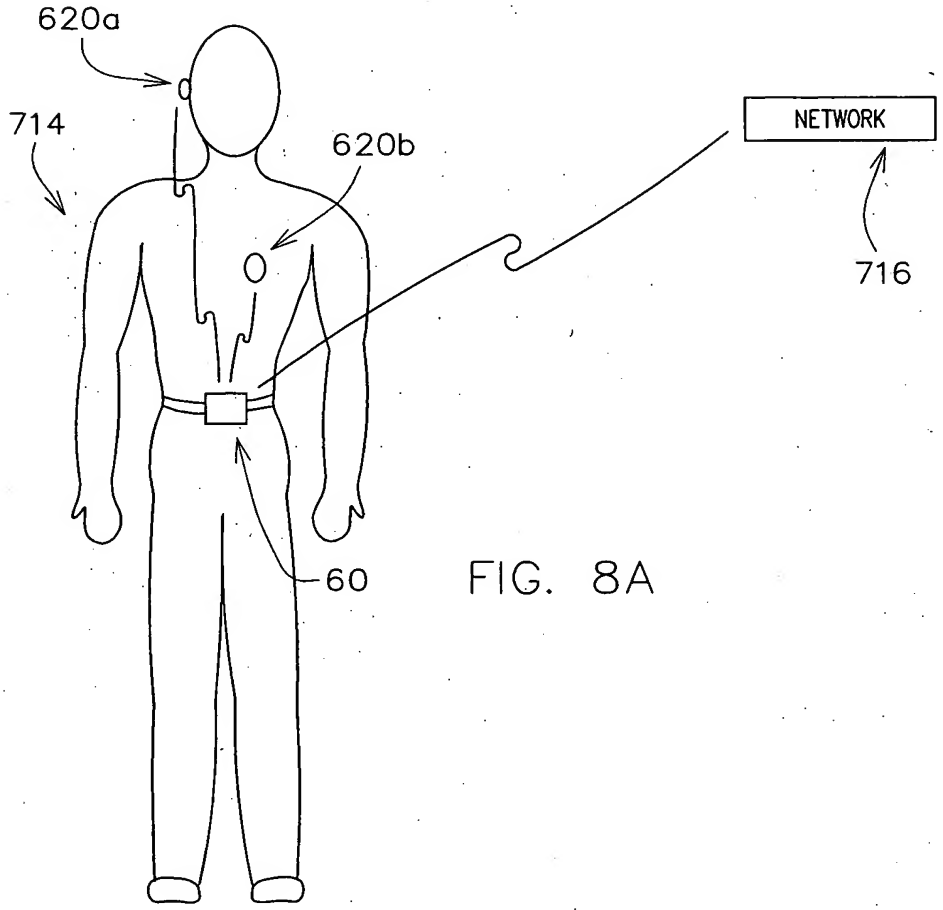

620a
714
620b
NETWORK
716
60

FIG. 8A

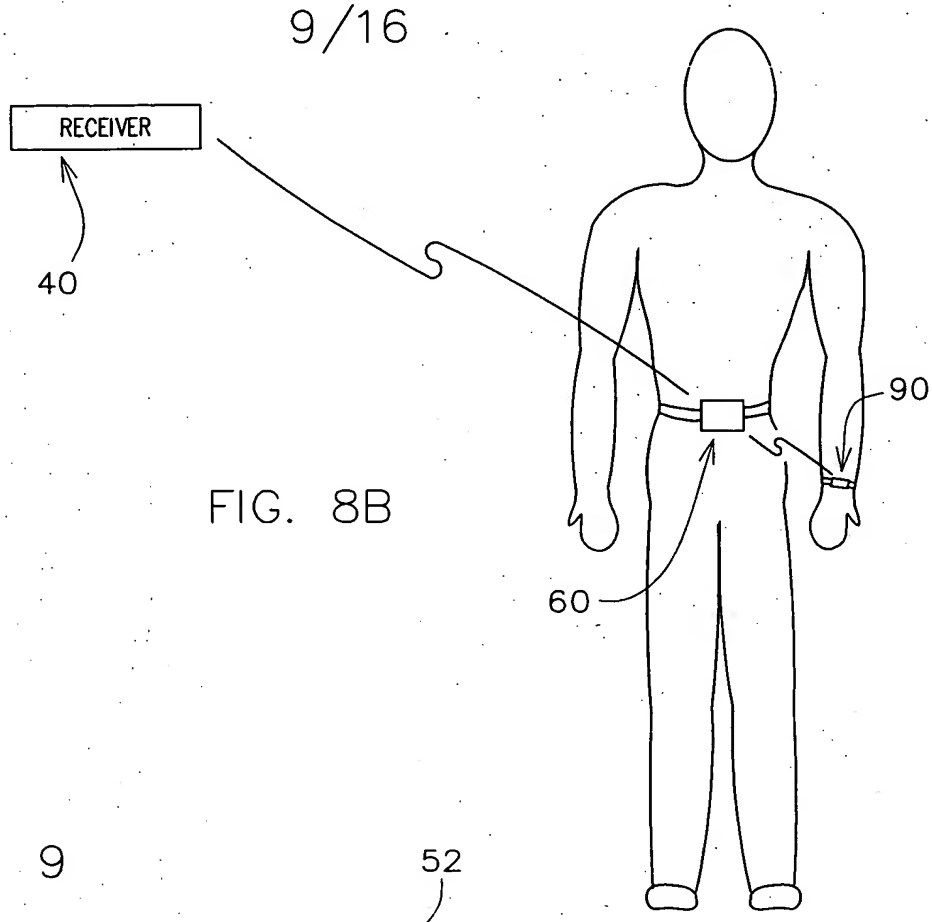
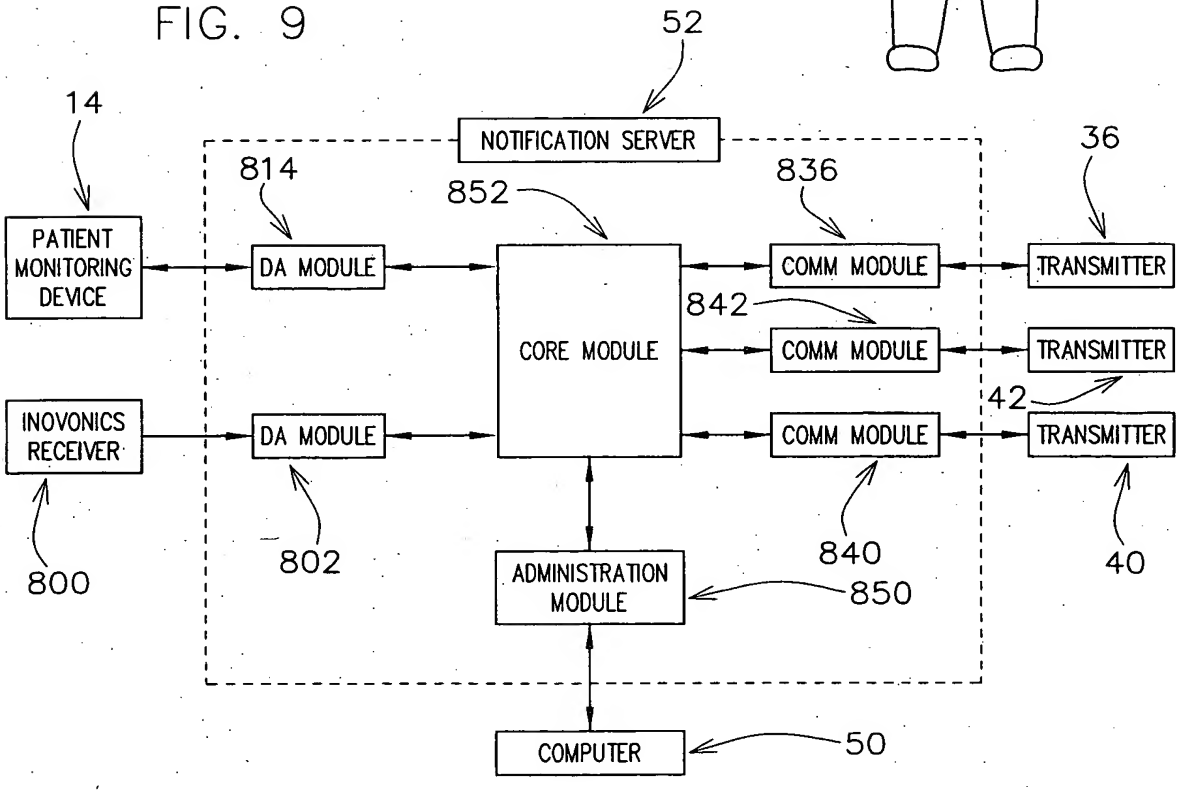

RECEIVER
40
90
60

FIG. 8B

FIG. 9


52
NOTIFICATION SERVER
14
814
852
836
36
PATIENT MONITORING DEVICE
DA MODULE
CORE MODULE
COMM MODULE
TRANSMITTER
842
COMM MODULE
TRANSMITTER
42
INOVONICS RECEIVER
DA MODULE
COMM MODULE
TRANSMITTER
800
802
840
40
ADMINISTRATION MODULE
850
COMPUTER
50

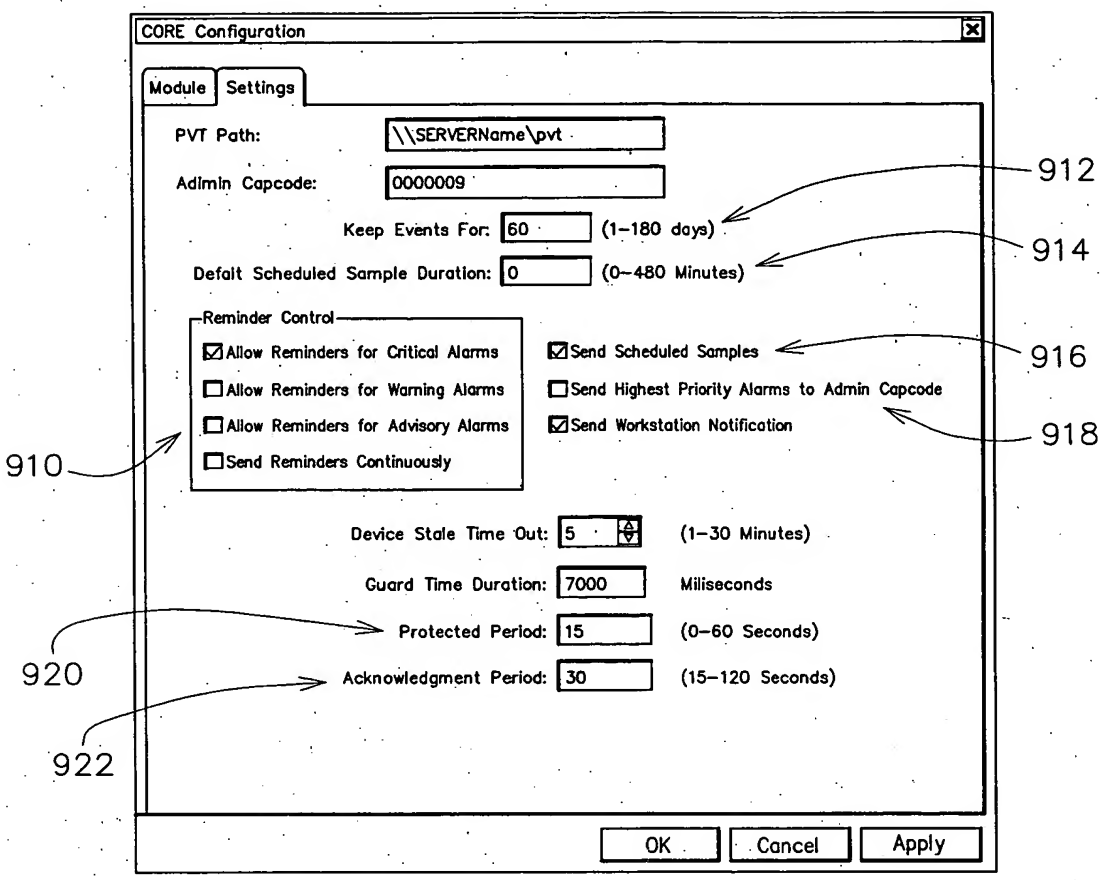

CORE Configuration
Module
Settings
PVT Path:
\\SERVERName\pvt
Admin Capcode:
0000009
Keep Events For:
60
(1–180 days)
Default Scheduled Sample Duration:
0
(0–480 Minutes)
Reminder Control
Allow Reminders for Critical Alarms
Allow Reminders for Warning Alarms
Allow Reminders for Advisory Alarms
Send Reminders Continuously
Send Scheduled Samples
Send Highest Priority Alarms to Admin Capcode
Send Workstation Notification
Device Stale Time Out:
5
(1–30 Minutes)
Guard Time Duration:
7000
Miliseconds
Protected Period:
15
(0–60 Seconds)
Acknowledgment Period:
30
(15–120 Seconds)
OK
Cancel
Apply
912
914
916
918
910
920
922

FIG. 10A

FIG. 10B



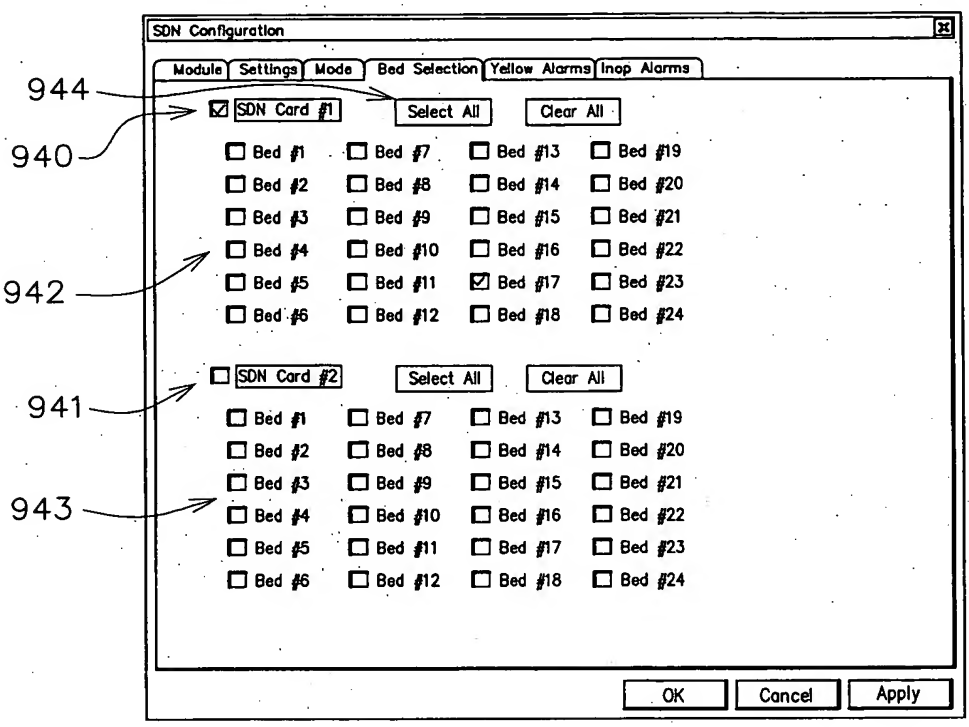



FIG. 10C

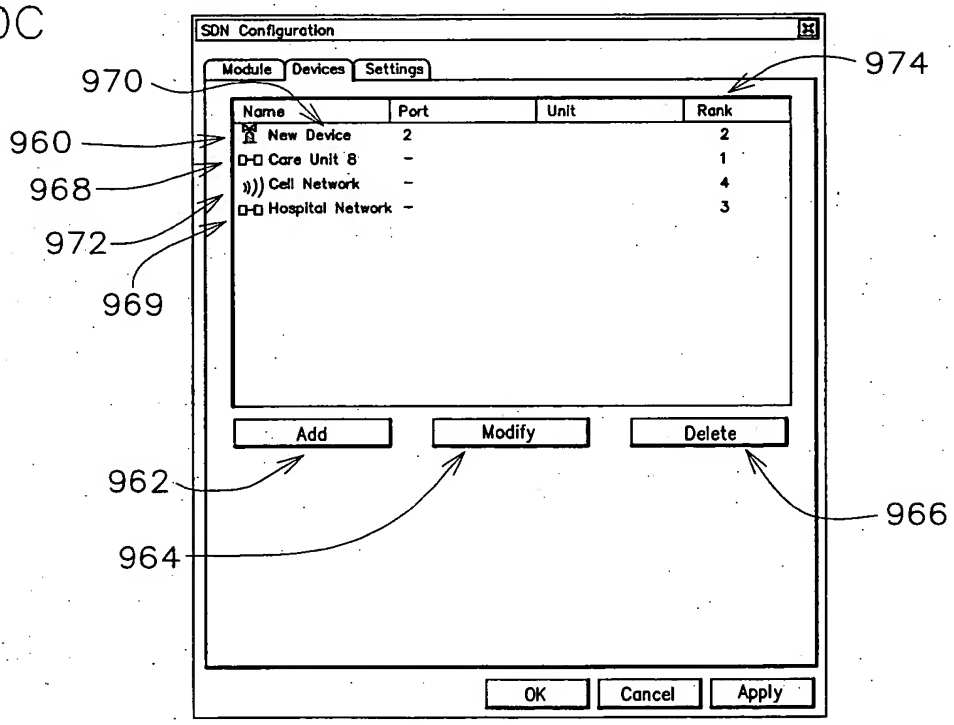


FIG. 11A

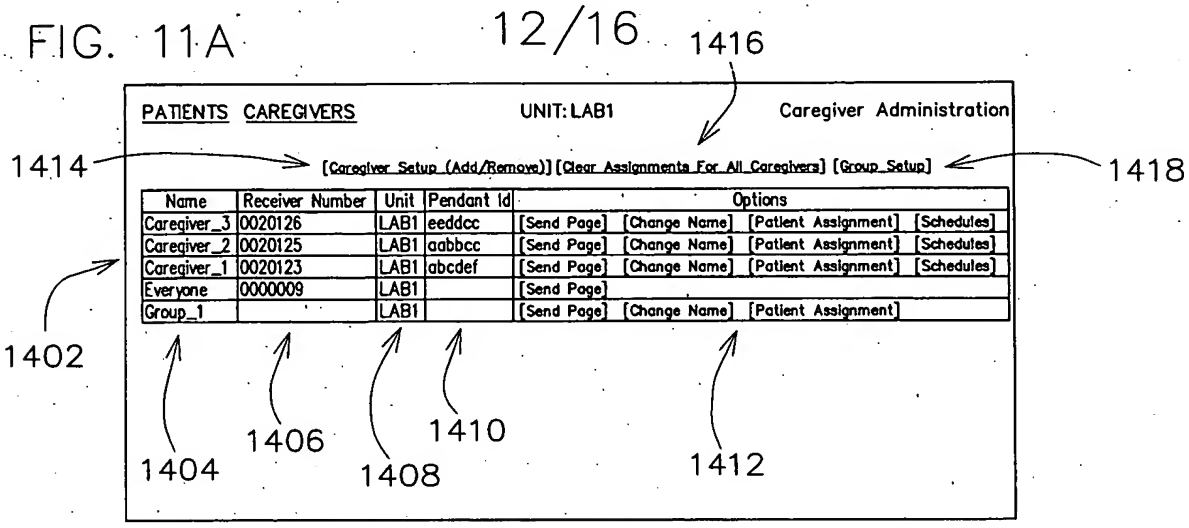



FIG. 11B

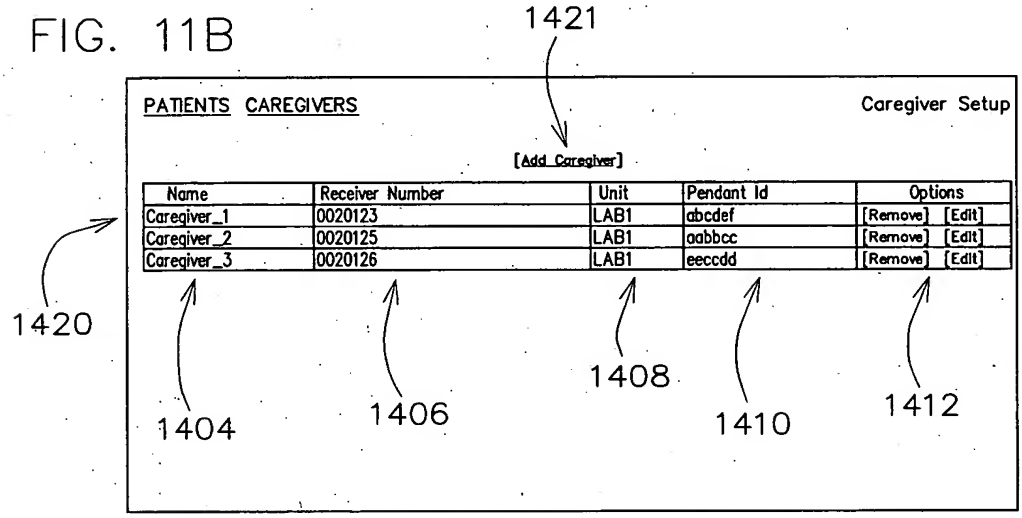



FIG. 11C

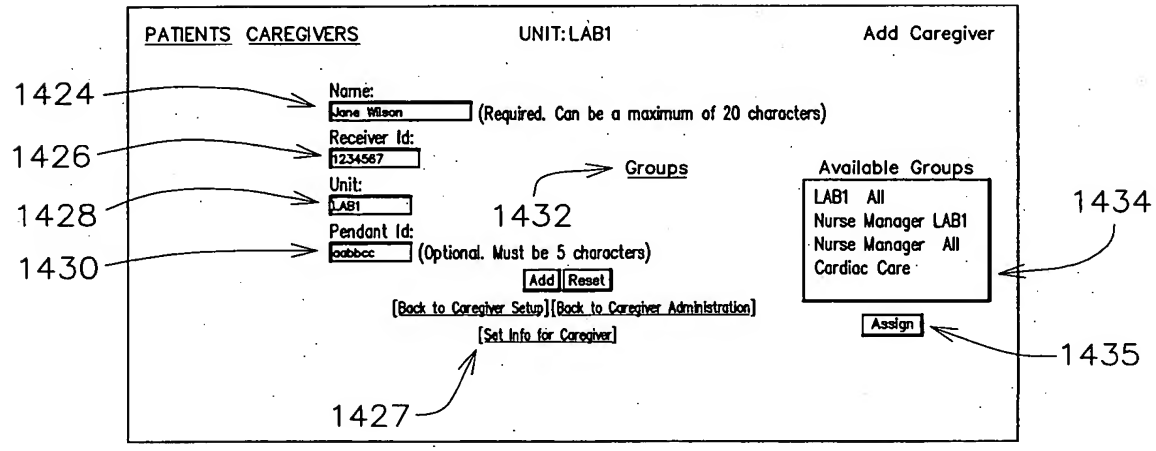


FIG. 11D

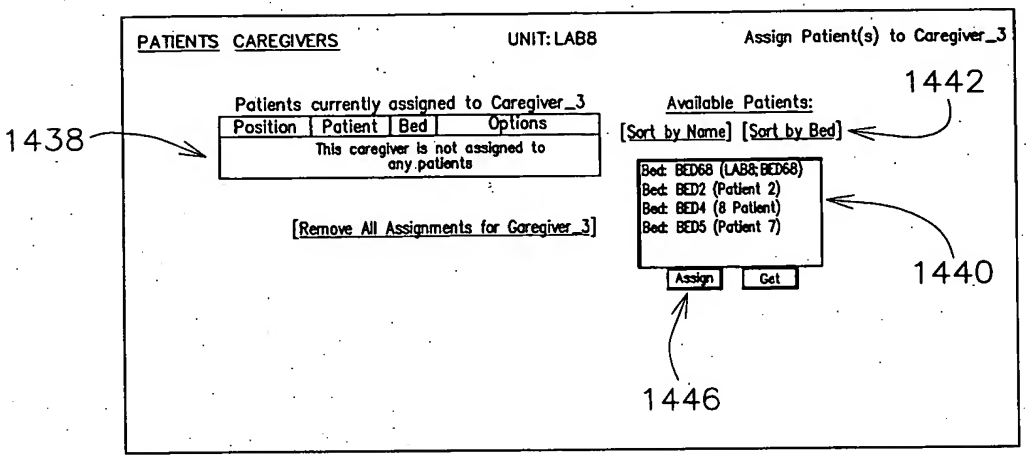



FIG. 11E

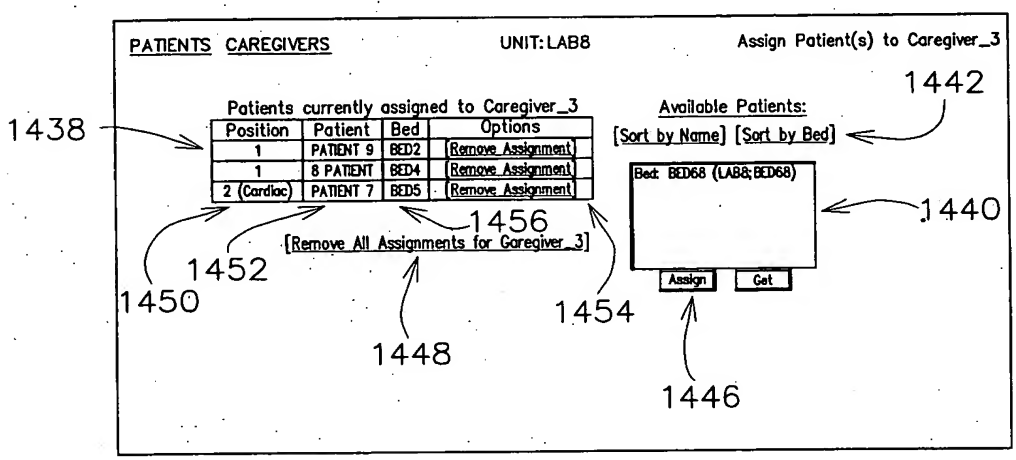
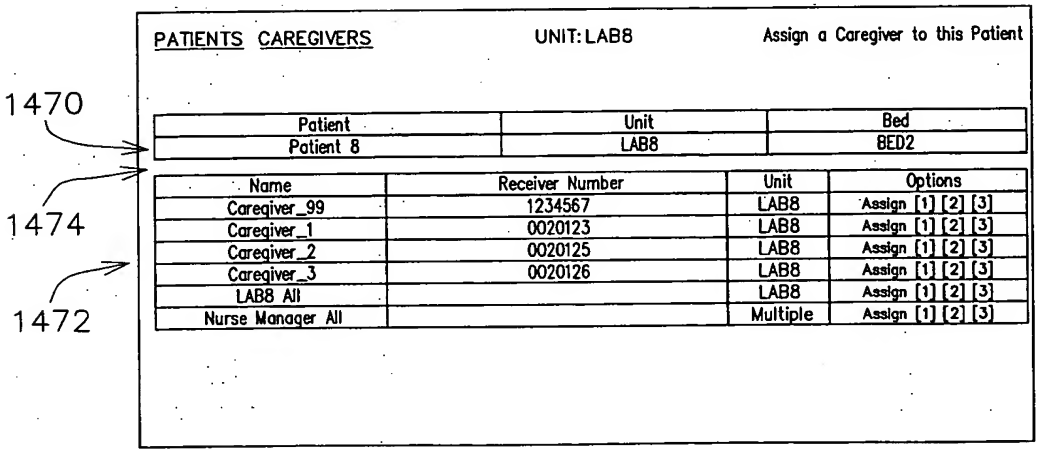



FIG. 11F



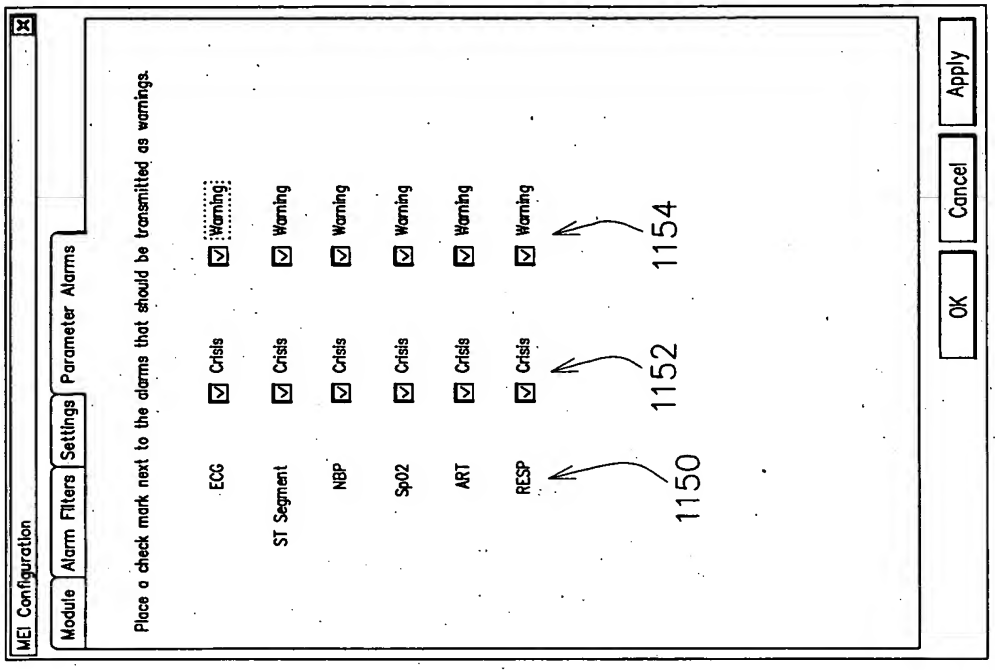



FIG. 12B

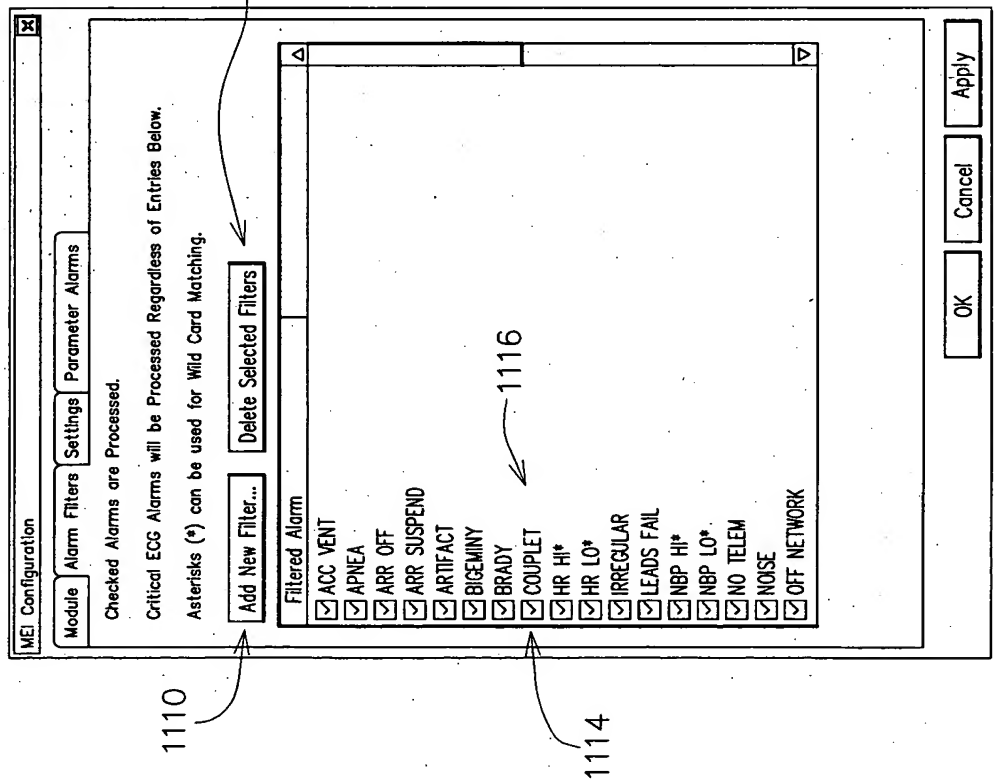



FIG. 12A

FIG. 13

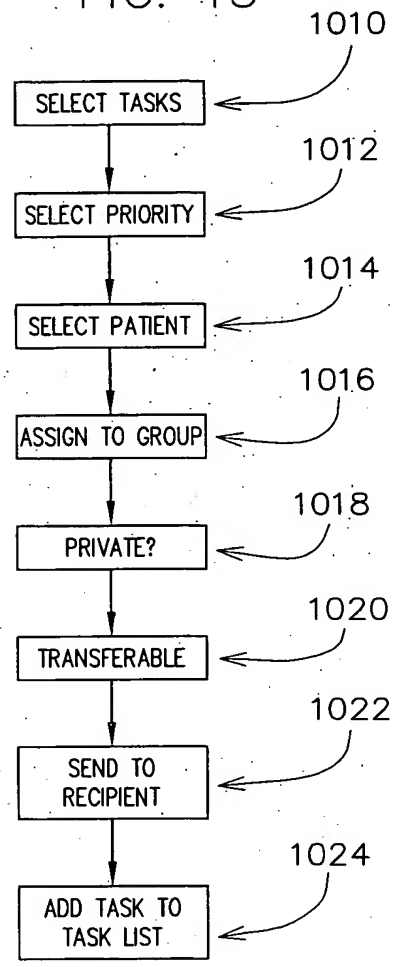
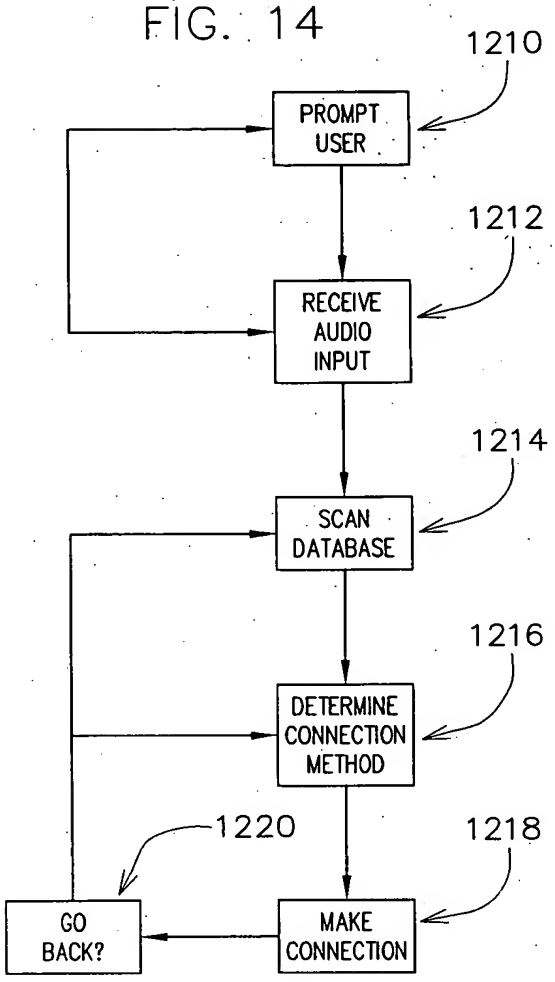



FIG. 14



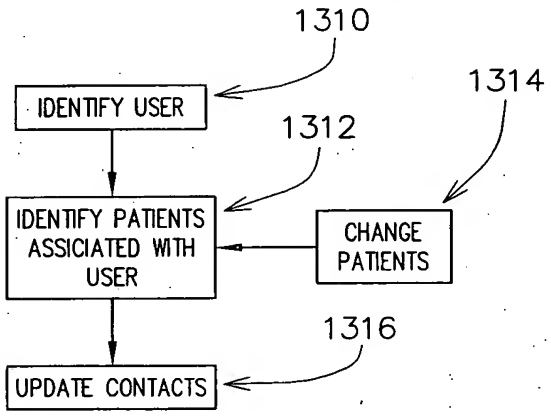
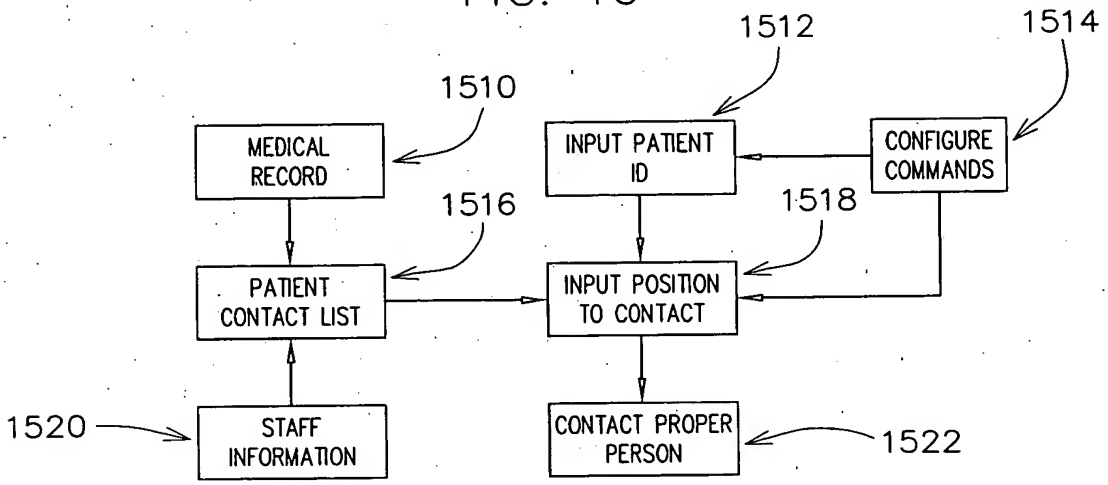




FIG. 15

FIG. 16


1512
1514
1510
MEDICAL RECORD
INPUT PATIENT ID
CONFIGURE COMMANDS
1516
1518
PATIENT CONTACT LIST
INPUT POSITION TO CONTACT
1520
STAFF INFORMATION
CONTACT PROPER PERSON
1522

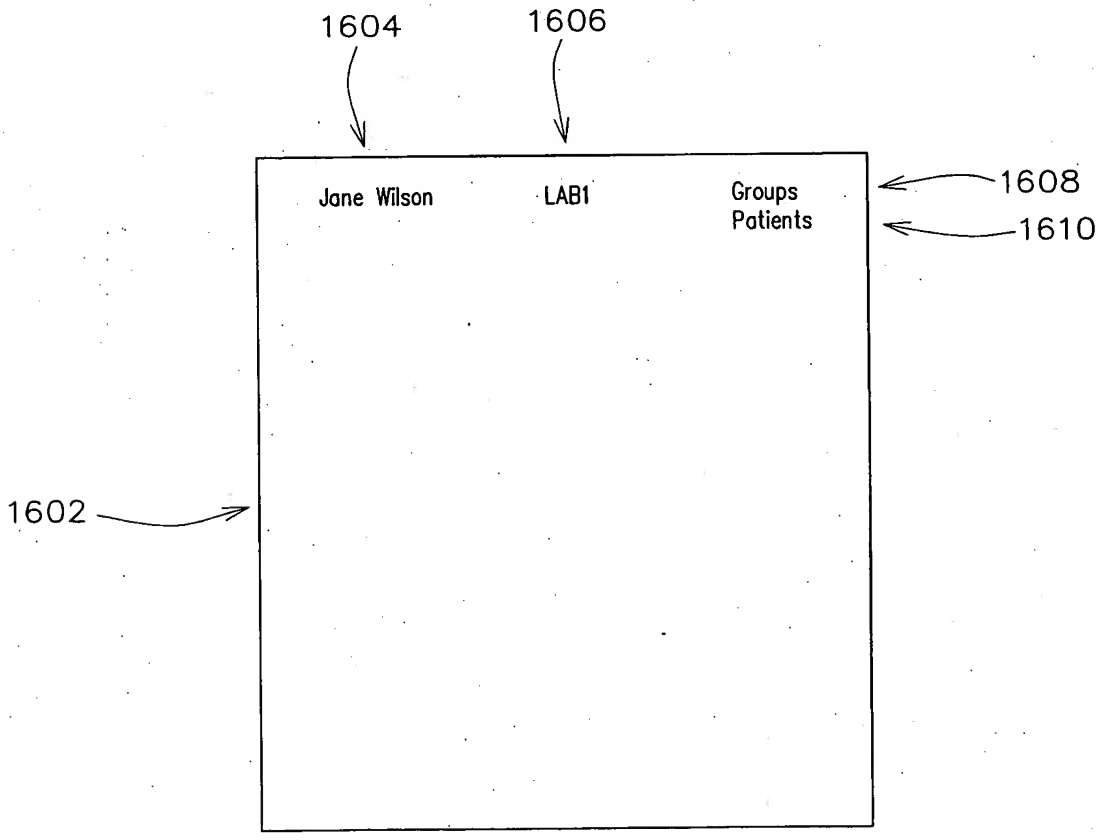

1604
1606
Jane Wilson
LAB1
Groups
Patients
1608
1610
1602

FIG. 17